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AUTHOR Felker, Roberta M.
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ABSTRACT

The point of view is presented that evaluation projects can be enriched by not using either an exclusively quantitative model or an exclusively qualitative model but by combining both models in one project. The concept of metaphor is used to clarify the usefulness of the combination. Iconic or holistic metaphors describe an object or event as unique, whereas analogic or comparative metaphors emphasize the relational or common attributes of objects or events. The most powerful evaluations recognize the potential of both a situation's uniqueness and its universality. This paper focuses attention on the blending of the interpretations that emerged from different types of data, identifying a wider range of potential elaborations than would have been possible using either type of data, or metaphor, alone. The evaluation of the Special and General Education Leadership Project (SAGE) is used as an example. In this evaluation project the first two years depended on a quantitative approach; but, due to a change in leadership, the third year of the project added a qualitative, anthropological, point of view to the data collection. (The information form for staff development activities is appended). (Author/CTM)

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The Integration of Evaluation Paradigms Through Metaphor

Prepared by:
Roberta M. Felker

Wisconsin Research and Development Center
for Individualized Schooling
University of Wisconsin-Madison

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ABSTRACT

The Special and General Education Leadership Project (SAGE) was a three-year effort funded by the Bureau of Education for the Handicapped which focused on the training and integration of special and general education leadership personnel in five local education agencies and one state education agency. Activities during the first year were directed primarily at the principal and his or her role in the implementation of PL-94-142. During the second year, these activities were extended to assistant principals and other agency personnel. The third year of the project focused on collaborative staff development planning and implementation.

For the first two years, evaluation data for the SAGE Project were gathered primarily through quantitative instrumentation. Education agency personnel were asked to complete questionnaires which attempted to ascertain such dimensions of in-service programs as staff training needs, task-role assignment and congruence, and overall program effectiveness. The year one and two evaluations focused on the resulting statistics as a measure of technical compliance with the requirements of the original proposal, and as the basis for project recommendations.

During year three, a shift in the SAGE Project personnel permitted a reexamination of project data priorities, and the evaluation component of the project consequently assumed different dimensions. Anthropological, context-based evaluation procedures were incorporated, and included on-site observations and interviews as well as in-depth anthropological reports on four of the five districts' collaborative in-service activities. These qualitative data refocused and illuminated the context for the summative evaluation document.

Comparative discussions of evaluation methodologies have too frequently reified the complexities and nuances of the various strategies in the terms "qualitative" and "quantitative". More recently, the uselessness of such dichotomous classifications for understanding the complexities of the phenomenon under focus has been underscored in the literature, and the pluralistic, multidimensional nature of evaluation research has been a topic of vigorous discussion. However, articulation of an "ideal" of parity among the various research paradigms does little to give specific focus to how strategies within these paradigms can be integrated to provide more reliable and valid evaluation information. This paper draws on examples from the qualitative and quantitative SAGE Project data to illustrate the metaphorical qualities of these two paradigms, and further, to reflect on the possibilities for their integration.

The metaphors which can be associated with a phenomenon or methodology illuminate certain aspects of that phenomenon and shadow over others. The juxtaposition of different metaphors allows each phenomenon to be perceived anew from the perspective of the other. Iconic or holistic

metaphors attempt to describe an object or event as a unique entity. Illustrations from the qualitative data of the SAGE Project are utilized to show how these "auto-referential" metaphors can describe the unique context constructed from and legitimized by the interactions of the special and general education leaders at each of the workshops. Additionally, the quantitative data revealed analogic or comparative metaphors which give focus to relational qualities of the special and general education personnel as common groups with common attributes.

Just as wholly iconic metaphors would be totally incomprehensible, and wholly analogic metaphors could say nothing new about the things being compared, the most powerful evaluations recognize the potential of both a situations' uniqueness and its universality. This paper focuses attention on the blending of the interpretations that emerged from different types of data, a blending which identified a wider range of potential elaborations than would have been possible using either type of data or metaphor alone.

Orientation

The Special and General Education Leadership Project (SAGE) was a three-year administrative training effort funded in 1976 by the Bureau of Education for the Handicapped in response to the rapidly expanding focus of special education. The Project was based on the concepts of sharing, teaming, and integration, and was intended to apply these concepts in the development and implementation of in-service activities for special and general education administrators in five local education agencies and one state education agency. The evaluations of the Project utilized various types of qualitative and quantitative data gathered through a variety of methodological strategies.

The purpose of this paper is to explore the possibilities for the integration of these different types of data through the juxtaposition of metaphorical language and methodological strategy. Specifically, the paper:

1) describes the context of the SAGE Project;
2) outlines the status of the "qualitative" versus "quantitative" paradigmatical debate in evaluation research;
3) discusses the function of metaphor in illuminating and shadowing selected dimensions of phenomena, with particular reference to iconic and analysis metaphors;
4) illustrates parallels between metaphorical language and methodological strategy within the context of the SAGE data; and
5) elaborates the possibilities and implications of using metaphors

to help integrate both the uniqueness and the universality of an evaluation setting.

The paper focuses attention on the blending of the interpretations that emerge from both types of data, and identifies a wider range of elaborations than is possible using either type of data or metaphor alone.

Background: The SAGE Context

The SAGE Project was intended to address the staff development needs of general and special education administrators through the creation and activation of a unique national linking agency or partnership, illustrated in Figure 1. During the 1976-1979 time period, partnership members were directed toward attaining the goal of:

> Providing staff development innovations for integrating special and general education administration toward the end of improving education for the handicapped ("A Proposal for the Improvement of Special and General Education Administrators through a UCEA University - School System - State Education Agency Partnership", 1976, p. 5).

The cooperative context created through the partnership was to provide a resource and communication vehicle for impacting the scope and complexity of needed changes in special education.

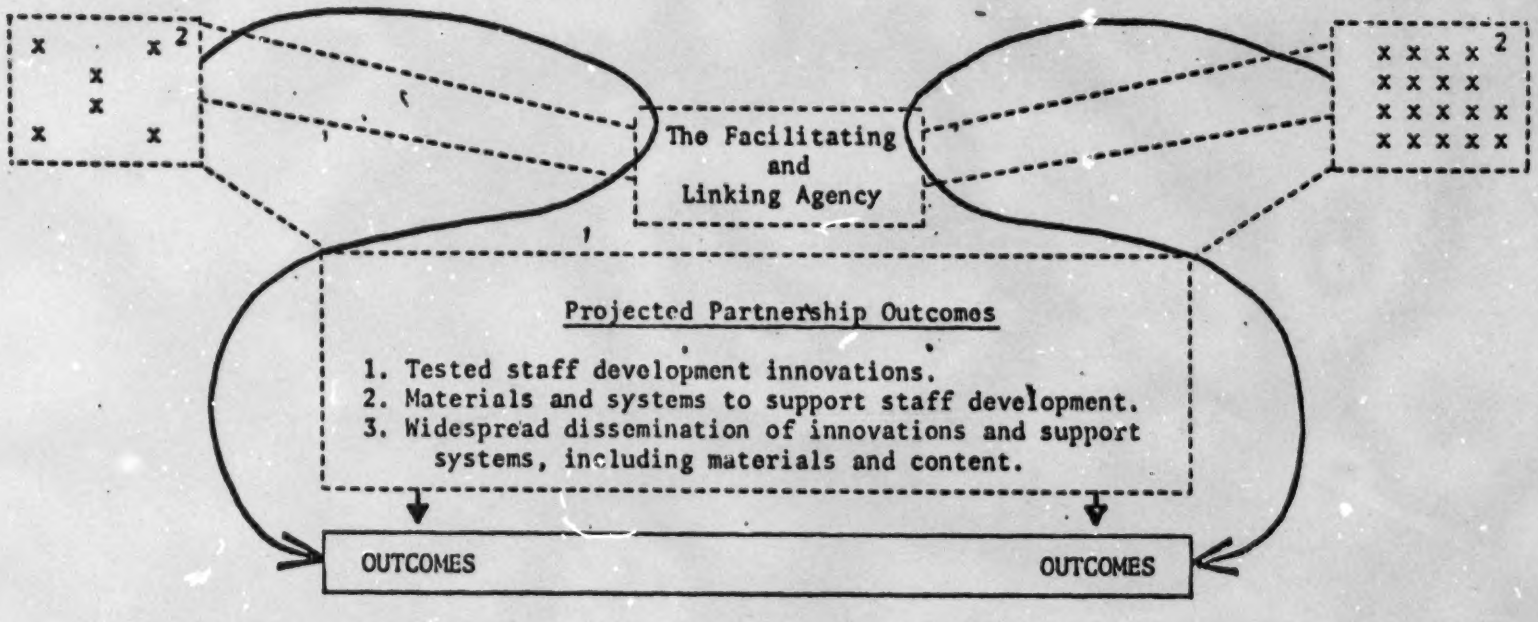
SAGE Year-one staff development programs were offered to over 700 general and special education professional during 3 to 6 day workshops. Although each education agency independently determined its approach to the selection of the target audience and program foci, the role of the principal in implementing PL94-142 emerged as a common theme across agencies.

Figure 1

A Model for Facilitating Staff Development Innovations for
Special and General Educational Administrators

School System and State Department Resource System[1]
(Six members initially)
1. Speical Education Direcotrs
2. Central Office Administrators
3. Principals

University Resource System I
(Twenty-two members initially)
1. Professors
2. Graduate Students
3. Deans and Other Administrators



[1]"Resources" may be defined generally as professional talent, networks, information, opportunities or funds which can advance individual or group staff development, organizational or product development to undergird staff development or institutional change.

[2]The diagram highlights exchange between systems; it should be made explicit, however, that an important part of the dynamic would be exchange within systems.

Source: SAGE Proposal, 1976, p. 10

During Year-two, SAGE staff development programs involved over 900 professionals. While building principals remained the prime target audience, year-two activities involved considerably greater numbers of psychologists, counselors, and especially assistant principals. Technical understanding of PL94-142 and of Individual Educational Plans (IEP's) continued to be the major concern of the program, although the activities were directed at a more agency-specific level than in the previous year.

The third year of the SAGE Project focused on interactive staff development at the local building level, and on the collaborative activities necessary to actualize school-based implementation. The Year-three activities were designed to build on the information base provided during Years one and two and to move beyond issues of technical compliance to issues relating to the sociocultural and political barriers to equity. The target audiences included a wide spectrum of education agency personnel for a total national leadership base of nearly 800 regular and special educators and administrators.

The 1976 SAGE Proposal originally specified "the collection of an admittedly crude set of measures (relating to quality education for exceptional children and the integration of the roles of special and general education administrators) which may be related through correlational analysis" (SAGE Proposal, 1976, p. 28). The evaluations for years one and two reflected this emphasis, and involved the collection of data through quantitative instrumentation. Specifically, education agency personnel were asked to complete questionnaires which were

designed to quantify such dimensions of in-service programs as staff training needs, task-role assignment and congruence, and overall program effectiveness. The year one and two evaluation documents utilized these data to provide a comparative measure of the individual agencys' technical compliance with the requirements of the 1976 proposal in relation to such aspects as the number of agency personnel inserviced, and the percent of attending personnel who expressed satisfaction with the inservice activities.

During year three, a shift in the SAGE Project personnel permitted a reexamination of the data collection priorities, and the evaluation component of the Project assumed different dimensions. Interviews were conducted with the education agency SAGE coordinators who indicated that, overall, the survey data from the year one and two instruments were not being used to ground the staff development activities because they failed to reflect individual agency variability and complexity. Based on this feedback, the decision was made to incorporate anthropological, context-based evaluation procedures grounded in what was happening in each education agency. The qualitative data included observations and interviews as well as in-depth anthropological observations of four of the five agency collaborative in-service activities, all of which were collected by individuals who were active participants in the staff development activities. The perspective offered by these data refocused and illuminated the education agency contexts in the summative evaluation document.

In summary, the SAGE Project involved a wide variety of staff development experiences which were evaluated using a variety of methodological strategies. The following section considers these general methodological strategies within the context of the recent paradigmatic debates in evaluation research.

The Evaluation Context

Recent discussions of evaluation methodology have frequently been characterized by dichotomization of the evaluation paradigms and by comparative analyses of the merits and shortcomings of the "dominant" and "alternative" approaches (e.g., Alkin et al., 1979; Dunkel, 1972; Patton, 1975; Patton, 1978; Scriven, 1972). Kuhn (1970) notes that this is the nature of paradigm debates:

> To the extent that two scientific schools disagree about what is a problem and what a solution, they will inevitably talk through each other when debating the merits of their respective paradigms. In the partially circular arguments that regularly result, each paradigm will be shown to satisfy more or less the criteria that it dictates for itself, and to fall short of a few of those dictated by its opponents . . . (Kuhn, 1970, p. 109).

Since the perceived epistemological contrasts of the various evaluation paradigms have been extensively documented in the literature, this paper will include only a comparative summary of the broad approaches in order to provide a touchstone for the subsequent integrative analysis.

The paradigm governing quantitative methodologies is one derived from the dominant hypothetico-deductive model. Over time, this model has emerged and been legitimized as the epitome of "good" research, (see, for example, Bernstein and Freeman, 1974; Campbell and Stanley,

1963), incorporating quantitative measurement, experimental design, and multivariate, parametric statistical analysis in the effort to develop and verify empirical generalizations. Quantitative methods focus on comparison of means and total sample gains, and generally on trends which are typical of a group as a whole. The goal is the establishment of what Campbell and Stanley (1963, p. 2) call a "cumulative tradition", that is, the systematic, comprehensive, and concensual identification of factors in order to account for a maximum amount of the variance in social phenomena.

The applicability of the natural science model to social science research is challenged by the epistemological underpinnings of qualitative methodologies. Qualitative methodologies, derived from the tradition of anthropological field studies (Pelto and Pelto, 1978), assume that some phenomena are not amenable to statistical measurement but rather can be more appropriately documented through techniques such as in-depth, openended interviewing and detailed personal observation. Using polarities to highlight the differences, the natural science model aims at prediction, and emphasizes reliability, objectivity and generalization; the qualitative paradigm aims at understanding, and emphasizes validity, subjectivity, and uniqueness. The goal of the qualitative paradigm is on understanding that "focuses on the meaning of human behavior, the context of social interaction, an emphatic understanding of subjective (mental, not nonobjective) states, and the connection between subjective states and behavior" (Patton, 1975, p. 7).

While serving to make explicit frequently unquestioned assumptions of the paradigms, these discussions have also given focus to the fact that reifying the complexities and nuances of the various strategies in static, dichotomous terminalogy does little to illuminate the phenomenon under study. It is becoming taken for granted that different kinds of questions and problems demand different types of research methodology. Mills (1961) has summarized this point quite cogently:

> If the problems upon which one is at work are readily amenable to statistical procedures, one should always try to use them . . . No one, however, need accept such procedures, when generalized, as the only procedure available. Certainly no one need accept this model as a total canon. It is not the only empirical manner.
>
> It is a choice made according to the requirements of our problems, not a 'necessity' that follows from an epistemological dogma (Mills, 1961, pp. 73-74).

The growing recognition of and confidence in the application of diverse evaluation strategies has made methods for maximizing and integrating these strategies particularly timely. Patton (1980) has identified two ways in which what he terms "methodological mixes" can be achieved. The first is through triangulation, or the use of multiple methods of observation. Denzin (1978) has identified four basic types of triangulation: (1) data triangulation, in which a variety of data sources are used in a study; (2) investigator triangulation, in which several different researchers or evaluators participate in a study; (3) theory triangulation, in which multiple perspectives are used to interpret a single set of data; and (4) methodological triangulation,

in which multiple methods are used to study a single problem or program. The second identified approach to achieving methodological heterozeneity is to create a mixed methodological strategy by combining different types of measurement, design, and analysis (Patton, 1978, p. 109).

While the use of multiple strategies is laudable and even necessary in theory, Patton (1980), Shapiro (1973), and Trend (1978) are among those who have noted the difficulties of such integration in practice. Researchers are commonly not equally comfortable with both qualitative and quantitative types of data, and the procedures for integrating them are not well developed. Thus, providing a coherent, well-integrated picture of a situation may be difficult.

One way of beginning to explore and combine the traditionally disparate methodologies is through the use of metaphors. Metaphor, like methodology, is a way of knowing, a process in which a conceptual transformation takes place (Nisbet, 1976). "Metaphor", writes Herbert Read, "is the synthesis of several complex units in... one commanding image; it is the expression of a complex idea . . . by sudden perception of an objective relation." This image appears equally applicable to the concept of methodology.

Both the SAGE context and the evaluation context have been briefly described. The use of metaphor as one way of looking at the integration of qualitative and quantitative evaluation data has been introduced. The next section elaborates the metaphorical context prior to the juxtaposition of the three contexts.

The Metaphorical Context

In Brown's (1978) words, "metaphors are our principal instruments for integrating diverse phenomena and view points without destroying their differences" (Brown, 1978, p. 79). Metaphor involves the transfer of the ideas and associations of one system or level of discourse to another, and, through this transfer, allows each system to be newly perceived from the point of view of the other. In the transfer, aspects of each system are illuminated, others shadowed over.

Brown (1978) suggests that models of scientific explanation be reformulated "by the view that formal representation . . . be understood as a metaphoric redescription (or creation) of the domain of the explanandum" (Brown, 1978, p. 80). Metaphors are thus a key to model building; a model may be thought of as a metaphor whose implications have been explicitly defined. Further, the model is an essential ingredient of theory, and hence must function as part of a commonly understood theoretical language of that scientific community (Hesse, 1970, p. 165). Thus, metaphors, like methodologies, "create" the facts and provide an interpretation of what the essential qualities of an experience must be.

Metaphors as models are of two types: analogic and iconic (Brown, 1978). An analogic metaphor illuminates by means of contrast or comparison, showing what a thing is <u>like</u> through its relation with other systems or elements. Iconic metaphors show what a thing <u>is</u> by creating the object or system as a unique entity. Analogic metaphors are relational; iconic metaphors are holistic. These two types of metaphors

and the related metaphorical models will be discussed in greater detail below, with particular focus on their parallels and point of intersection with methodological paradigms.

The analogic metaphor "lets us comprehend the particular in its likeness or relatedness to other particulars that have been newly classified in a common group . . ." (Brown, 1978, p. 85). To elaborate and expand an analogic metaphor is to become involved in what is known as analytic induction (Sutherland, 1960, pp. 66-67), the essence of which is to explain a phenomenon not by viewing it in isolation but rather in comparison and contrast to other phenomena (Collins, 1975, p. 4). More traditionally, this process is known as the method of controlled comparison (Blau, 1965), the method of determining causality from among a number of hypothesized factors.

There are a number of parallels between analogic metaphors and what this paper has identified as the "quantitative" paradigm. For example, both the metaphor and the methodology: (1) focus on comparing where a phenomenon occurs with where it does not occur and noting the differences in the accompanying variables; (2) give attention to the cumulative nature of science as defined by reliable, consistent relationships; and (3) illuminate trends and similarities among groups, samples and components. The focus of inquiry within the quantitative paradigm, however, is on the application of technique for refutation of propositions. The perspective inherent in the analogic metaphor focuses techniques of inquiry on the generation and elaboration of the propositions and models (Masterman, 1970, p. 60). The implications of the

similar but expanded perspective of the analogic metaphor for the interpretation of quantitative data will be explored later in this paper.

The iconic metaphor "allows us to apprehend what the particular is in its uniqueness" (Brown, 1978, p. 86); it creates a new and unparaphrasable frame of vision which is, in a sense, a methaphor for itself. Rather than comparing how things are similar or different, iconic models attempt to picture what things are, to create a new whole out of seemingly disparate and irrelevant elements. As Eliot (1960) remarks:

> When a poet's mind is perfectly equipped for his work, it is consistently amalmagating disparate experiences; the ordinary man's experience is chaotic, irregular, fragmentary. The latter falls in love, or reads Spinoza, and these two experiences have nothing to do with each other, or with the noise of the typewriter or the smell of cooking; in the mind of the poet these experiences are already forming new wholes (Eliot, 1960, p. 247).

The iconic mode of explanation in terms of the interrelations of a genus and its specific species is, in some ways, similar to the mode of explanation sought by those employing methodological strategies which have roots in the "qualitative" paradigm. In contrast to the quantitative focus, in which a limited number of variables are specified in the attempt to simplify the complexity of a totality, the iconic metaphor qualitative methodologies seek the gestalt, the unique essence of the totality in all its complexity. In Brown's words, (1978, p. 85), they are "auto-referential within a single frame". The constant emphasis is on a valid representation of the new emergent, a new

emergent that is distinguished from any other situation or event. However, while the metaphor/methodology can be constantly elaborated and refined, it must be remembered that the appearance of closure is always in the face of elaborations which are incomplete: "building iconic models does not commit one to the a priori belief that everything is related to everything else" (Brown, 1978, p. 120).

Building on Brown's suggestion that models of scientific explanation be understood as metaphoric redescription, this section has briefly juxtaposed analogic and iconic metaphors and quantitative and qualitative methodologies to give focus to the ways in which both types of metaphors and methodologies may offer different theoretical perspectives. In the following section, examples from the SAGE Project evaluation data provide a context for integrating these perspectives in a real-world setting.

The Integrated Contexts: SAGE, Evaluation, and Metaphoric

The quantitative and qualitative SAGE evaluation data reflect both the paradigmatic and metaphoric differences previously discussed. This section contrasts examples from these data in order to highlight their differences in emphasis, and then integrates the examples in order to give focus to the wider range of elaborations which becomes possible through their blending.

During Year-one of the SAGE Project, the SAGE Evaluator developed a General Information Form for Staff Development Activities (see Appendix). This form solicited descriptive information with respect to the individual education agency inservice activities, and was intended to

be completed by the SAGE coordinator in each agency. This information was collected each year during the Project's three-year tenure, and, for the first two years, comprised the sole source of information regarding the staff development aspect of the SAGE Project activities. The descripture dimensions which were solicited on the form and which comprised the basis of the evaluation document inservice activity summaries included:

- Major objectives of the staff development program
- Number of special and general education professionals invited and in attendance
- Duration
- Instructional Materials Utilized
- Percent of total program time spend in various types of activities (e.g., lecture, films, small groups discussion . . .)
- Facility type and location
- Trainers
- Major problems encountered
- Rating of perceived success, from "1" (very Successful) to "7" (not successful)
- Major strengths of the program
- Major weaknesses of the program

These data were utilized by the Evaluators for at least three purposes: (1) to determine overall Project compliance/noncompliance with the requirements of the 1976 SAGE Proposal (e.g., did each district select at least 25 participants for their program? did each district

specify objectives for a seminar lasting 3 to 5 days?); (2) to form the basis for the Summary of Activities section; and (3) to permit comparisons of goals, topics and activities across districts. For example, the General Information Form data supplied by one of the education agency coordinators in Year-three permits the description/comparison of selected aspects that agency's inservice program presented in Table 1.

These quantitative data allow a number of observations about the inservice activities in the example agency. It can be observed, for example, that the reported instructional format for this inservice involved a higher percentage of both lecture and small group discussion time than the "average" workshop, that the inservice lasted far fewer hours than "average", and involved roughly one third more special education administrators and roughly one third less general education administrators.

While other applications and interpretations are admittedly possible using these same data, this example from the evaluation report emphasizes that the strengths and limitations of the quantified data are strikingly similar to those of the analogic metaphor. That is, while the data allow the reader to focus on simplified trends, commonalities, and contrasts, they do not by themselves give unique focus to the complexity of the general education-special education interface. We can create curious, provocative, enlightening analogic metaphors grounded in these data, but are also limited by the data to only analogic metaphors or ways of knowing.

Table 1

DESCRIPTION/COMPARISON OF SELECTED ASPECTS OF ONE SAGE EDUCATION AGENCY INSERVICE ACTIVITES

Programmatic Aspect	Description	Mean Comparison
Objectives	1. To assist participants recognizing the partnership between regular and exceptional education. 2. To create an understanding of how ex education programs are to be an integral part of the district's transition to the middle school 3. To make the principals aware of the transition goals for the 1979-80 school year	
Summary of Instructional Methods	40% Lecture 10% Open Total-Group Discussion 50% Small Group Discussion	18% Lecture 11% Open Total Group Discussion 21% Small Group Discussion
Participants	47 Special Education Administrators 20 General Education Administrators	30 Special Education Administrators 32 General Education Administrators
Duration	8 hours	18 hours
Location	Local non-school facility	100% at local non-school facility

During Year-three, the General Information Form for Staff Development Activities as the only source of inservice activity information was supplemented by the Evaluator's attendance at a number of the education agencies' staff development workshops, and by the reports of an anthropologist who attended four of the five local education agency workshops. The following represent two excerpts from the anthropological report on the same agency inservice activities used in the previous example.

> An examination of the various perspectives held by participants at the workshop reveals immediately several levels of 'definition of the situation'. On the one level, participants shared a 'common environment' and a common 'definition of the situation'. All understood proper Workshop actions such as respectful attention to the speaker . . . At another level, however, participants held differing 'definitions of the situation;' the general education administrators, for example, had differing expectations and opinions about special education and the Workshop than did the special education administrators . . . (Mortland, 1979, p. 14)

> The keynote address . . . appeared to be well received by Workshop participants . . . First, his points were clear, easily understood, and of interest to those interested in special education. Secondly, he responded positively to the questions asked . . . he spoke to the question. Thirdly, he acknowledged the concerns expressed by each questioner. These may be small points; I consider them, however, to be the 'human content' of human activity upon which our attitudes and opinions turn . . . A number of comments by participants were heard during the Workshop about his speech; e.g., 'I agree with him that there are more similarities than disimilarities between handicapped and non-handicapped people' (Mortland, 1979, p. 18).

In her observations, Mortland utilized ethnographic description to:

> explore the everyday actions and everyday language of the group under discussion in an effort to discover the various existent perspectives among the members of the group; the processes of categorization by which members of the group view one another, and the consequences these processes have for the group's activities and the attitudes which attend and result from the activities of the group (Mortland, 1979, p. 9).

The actions, language, and categorization processes of the Workshop participants were brought together in a description of a unique event in a unique context . . . with the emphasis on the validity of a newly emergent frame of vision which characterizes the iconic metaphor.

The two types of evaluation data are paralleled by the two types of metaphors. One aspect of the analogic metaphor and of the quantitative data as they were utilized in the SAGE evaluation is their essentially simplified, comparative nature. Thus, percents and numbers were calculated to be viewed partially in relation to other smaller or larger percents. The iconic metaphor and the qualitative data reflected selected dimensions of the total inservice experience in a specific context.

At this point, Brown's (1978) reminder regarding metaphors may well be applied to methodology as well:

> No effective metaphor, however, can be entirely iconic or analogic: were it wholly iconic it would be incomprehensible; were it wholly analogic it would tell us nothing new about the things compared. Indeed, the most powerful metaphors are just those that are both (1) that which they express and no other (sameness) as well as (2) like other unexpected things. (Brown, 1978, p. 88).

In the example, knowing that 40 percent of the inservice time was spent in lectures permitted limited comparison with time spent in other ways, and might by itself, lead a reader to observe that the workshop format should have been more "stimulating" or "interactive". However, when the anthropological perspective regarding the speaker's effectiveness is juxtaposed on the statistic, both forms of information are elaborated, and new questions may arise about, for example, under what circumstances lecture is an effective communication technique for inservice program. Similarly, discussions of the role of the general education administrator as "student" at a special education service (cf. Morton, 1979, p. 14) can only be expanded and clarified by a knowledge of what percent of the audience are general education administrators. As the metaphors connote and complement differences, so too the methodologies.

Summary and Implications

The SAGE Project was a three-year project focusing on staff development activities for general and special education administrators in six education agencies. The first section of the paper began by summarizing the inservice activities for each of the three years, and concluded with an overview of the SAGE evaluation activities and priorities. The two types of evaluation data collected were then placed in the context of the broader quantitative-qualitative paridgmatic debate, and the relative strengths and weaknesses of each of these paradigms were noted. The third section of the paper juxtaposed the quantitative and qualitative methodologies with analogic and iconic

metaphors for the purpose of illuminating ways in which these offered different but complementary perspectives. These different perspectives were then applied to examples from the SAGE evaluation data.

This exploration of the integration of metaphor and methodology has a number of implications for the field of evaluation. A few of these are elaborated below. First, using metaphor to explore evaluation methodology allowed the easier intersection of two historically disparate frames of reference; it permitted an integration of these diverse methodologies without trivializing their differences. This attempted integration serves as a reminder of the gestalt which can be formed when all our ways of knowing are truly legitimized and then examined together for the unique vividness they offer. It must also necessarily serve as a reminder that the findings generated by these different methodologies may not necessarily lend themselves to tidy integration, but rather may give focus to conflicts and contradictions. However, as Cicourel and Kitsuse (1963, p. 10) remind us, exploring "vagueness as a definite property of the data" is critical so that the risk of falsely supporting or discrediting a theory is minimized. Second, legitimizing a gamut of ways of knowing implies that the standard methodological repertoire of evaluators be expanded. Insofar as any paradigm is unknown and its applications unclear, that paradigm will not provide the framework for structuring research, and thus that which becomes accessible to us as "reality" is that much more limited. As Cronbach (1975, p. 126) has noted, "there are more things in heaven and earth than are dreamt of in our hypotheses, and our observations should be open to them."

Third, the metaphor-methodology integration served to reemphasize the position that methodology is not a forced choice between "quantitative" scientific positivism and "qualitative" creative intuition. This forced choice is based on erroneous assumptions about the natures of scientific and artistic knowledge. As other authors have cautioned with respect to methodology, "the choice is between more or less fruitful metaphors, and between using metaphors or being their victims" (Brown, 1978, p. 90).

Fourth, while the elaboration of possibilities is a central theme of this paper, this is not meant to imply that all metaphors (or methodologies) are of equal value. Rather, it seems exciting to begin to reinterpret and expand the traditional criteria of scientific adequacy in metaphorical terms. For example, the concept of isomorphism or sameness in terms of the dimensions in which we are interested may be a potentially more useful concept than the classical criteria of correspondence to observed experience. The criteria of economy, cogency, and range may be as applicable to methodologies as they are to metaphors.

In conclusion, this paper suggests the need and possibility of an evaluation framework that integrates yet transcends the opposition between paradigms. Brown (1978) has made reference to the dissonance between the mobile, synergistic character of experience and the frequently static epistemology by which we measure whether this experience counts as knowledge. One part of what is needed may be a self-reflective form of discourse within which we can gain insight both into society and into our own moral agency -- and into the endless possibilities and

surprises inherent in this discourse as a metaphorical and methodological struggle for emancipation.

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APPENDIX

STAFF DEVELOPMENT FOR SPECIAL AND GENERAL EDUCATION ADMINISTRATORS: A General Information Form for Staff Development Activities

STAFF DEVELOPMENT FOR SPECIAL AND GENERAL EDUCATION ADMINISTRATORS

A General Information Form for
Staff Development Activities

The University Council for Educational Administration

Please return survey to:

Roberta M. Felker
University of Wisconsin-Madison
1025 West Johnson Street #766
Madison, Wisconsin 53706

SAGE Staff Development Program Evaluation:
Program Coordinator's Form

1. Please list the major objectives set for this staff development program:

   1. _____

   _____

   2. _____

   _____

   3. _____

   _____

2. How many professionals were <u>invited</u> to attend the staff development program?

   _____

3. How many professionals <u>actually attended</u> the program? _____

4. If possible, would you please list the names of the program participants on a separate sheet. Please also include their position title and school address. If possible, please list separately the names of professionals who were invited to the program but did not attend.

5. For how many days and for how many hours a day did the program last?

   _____ days

   _____ hours a day

6. How many special education administrators and general educational administrators attended the program?

   _____ special education administrators

   _____ general education administrators

7. Please briefly describe any instructional materials used in the program.

_____

_____

_____

_____

8. Were any of these instructional materials designed especially for the program? (If possible, please enclose a copy.)

1. YES 2. NO

9. Approximately what percent of the total time of the program was spent on the following types of instructional activities?

	Per Cent of Total Program Time
a. lecture	_____
b. open total-group discussion	_____
c. small-group discussion	_____
d. films	_____
e. case studies	_____
f. simulation	_____
g. other (please specify	_____
_____	_____
_____	_____
_____	_____
TOTAL	100%

10. In what type of facility was the program held?

_____

_____

11. Please list the names, position, titles, and addresses (if possible) of the principal trainers of the staff development program. Include any external consultants.

Name of Trainer	Position Title	Address

12. Would you please record the major problems, if any, you faced in designing and coordinating the staff development program.

13. In your opinion, was the program successful in meeting its objectives? Circle one number along the following "continuum."

Very Successful 1 2 3 4 5 6 7 Not Successful

14. In your opinion, what were the major strengths of your program? Please be as specific as possible.

15. In your opinion, what were the major weaknesses of your program? Please be as specific as possible.

16. Please comment on any other matter relevant to describing and/or evaluating your staff development program.